

### Remarks

Paragraph 2 of the Office Action makes objection to the use of the term “about  $0.01\text{ cm}^{-1}$ ” in claims 2, 19 and 33 “since it’s not defined in the specification.” The term is used in the specification. See, e.g., paragraphs [0016] and [0048]. As stated in the previous response, the word “about” is commonly used in patents, including in prior art patents in the present technical field. As these are issued patents, the claims by definition meet the requirements of 35 U.S.C. 112. The term “about” is thus understood by those of skill in the field. The objection should thus be withdrawn.

The term “medium” has been deleted from the claims.


As to paragraphs 4-6 of the Office Action, the term “exact expansion” is introduced in claim 17, so the reference in claim 20 seems to have proper antecedent basis. As such, the rejection is not understood.

As to the continued Section 101 rejection, the claims have been amended to recite a useful result. That is, the spectral transmittances are used in analysis of atmospheric optical sensor data. See the specification at paragraphs [0004], [0005], [0006], [00013], [00014], [0047], [0048], and [0122], which establish this utility of the spectral transmittances. As stated in paragraph [0013], the invention (termed “SERTRAN” in the specification) retains all capabilities of the prior art radiative transfer algorithm termed “MODTRAN4”. Thus, the usefulness of MODTRAN4 described in the Background, applies to the usefulness of the present invention. The use of the spectral transmittances in the analysis of data gathered by atmospheric imaging sensors is clearly a “useful” result under 35 U.S.C. 101.

Accordingly, each claim recites several useful aspects, thus meeting the examiner's objections under 35 U.S.C. section 101.

If for any reason this Response is found to be incomplete, or if at any time it appears that a telephone conference with counsel would help advance prosecution, please telephone the undersigned in Westborough, Massachusetts, (508) 898-1501.

Respectfully submitted,



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